

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A method for communicating a data signal over a power line carrying a power signal ~~having a voltage greater than one thousand volts~~, wherein the method comprises:

providing a transformer having a winding and a core;
disposing the core of the transformer in sufficiently close proximity to the power line to induce an AC voltage in the winding from the power signal carried by the power line;

~~inducing an alternating current (AC) voltage from the power signal having voltage greater than one thousand volts carried by the power line;~~

powering a transceiver device with the induced AC voltage; and
communicating the data signal with the transceiver device via the power line.

2. (Previously presented) The method of claim 1, further comprising transmitting the data signal to an end user communication device via the transceiver device.

3. (Previously presented) The method of claim 2, wherein the data signal is transmitted over a fiber optic link.

4. (Previously presented) The method of claim 1, further comprising receiving the data signal from an end user communication device via the transceiver device.

5. (Previously presented) The method of claim 4, wherein the data signal is received over a fiber optic link.

6. (Original) The method of claim 1, further comprising filtering the induced AC voltage.

7. (Previously presented) The method of claim 1, further comprising filtering the data signal.

8. (Currently Amended) A device for communicating a data signal over a power line, wherein the power line carries a power signal ~~having voltage greater than one thousand volts~~, the device comprising:

a transformer device having a winding and a core configured to be disposed in sufficiently close proximity to the power line to induce an AC voltage from the power signal carried by the power line in the winding; ~~and~~

a transceiver that ~~receives~~ is configured to receive power from the transformer device, and

wherein said transceiver ~~communicates~~ is configured to communicate the data signal through the power line.

9. (Previously presented) The device of claim 8, further comprising:

a ferrite member disposed in proximity to the power line for increasing the inductance of a section of the power line; and

an enclosure for housing the ferrite member, the transformer device, and the transceiver device.

10. (Previously presented) The device of claim 8, wherein the power line comprises a center conductor, an insulator, and a second conductor external to the insulator, wherein the transceiver communicates the data signal through the second conductor.

11. (Original) The device of claim 9, wherein the enclosure provides a ground potential.

12. (Original) The device of claim 8, wherein the transformer device is a current transformer.

13. (Original) The device of claim 8, wherein the transceiver is a fiber optic transceiver.

14. (Previously presented) The device of claim 10, wherein the power line includes an outer insulator external to the second conductor, said outer insulator includes a gap, and the transceiver is coupled to the second conductor at said gap in the outer insulator of the power line.

15. (Previously presented) The device of claim 8, wherein the power received by the transceiver is an AC power signal and the transceiver converts the AC power signal to a direct current (DC) power signal.

16. (Previously presented) The device of claim 8, wherein the power received by the transceiver is an AC power signal and further comprising a low-pass filter for filtering the AC power signal provided by the transformer device.

17. (Previously presented) The device of claim 8, further comprising a high-pass filter for filtering the data signal provided via the power line.

18. (Currently amended) A method for providing communication of a data signal over a coaxial power cable having a center conductor carrying a power signal ~~having voltage greater than one thousand volts~~, an outer conductor, and an outer insulator outside the outer conductor, the method comprising:

removing a portion of the outer insulator of the coaxial power cable;

coupling a communication device to the outer conductor of the coaxial power cable where the outer insulator is removed;

providing a transformer having a winding and a core;

disposing the core of the transformer in sufficiently close proximity to the power line to induce an AC voltage in the winding from the power signal carried by the power line; and

~~inducing a voltage from the power signal having voltage greater than one thousand volts carried by the center conductor of the coaxial power cable; and~~

providing the induced voltage power to power the communication device.

19. (Previously presented) The method of claim 18, further comprising grounding the outer conductor at a predetermined distance from the communication device.

20. (Previously presented) The method of claim 19, further comprising selecting the predetermined length to provide a predetermined inductance value.

21. (Previously presented) The method of claim 18, further comprising providing at least one ferrite core outside the outer insulator to adjust an inductance.

22. (Previously presented) The method of claim 18, further comprising providing a gap in the outer conductor, wherein the communication device is communicatively coupled to the outer conductor on both sides of the gap.

23. (Previously presented) The method of claim 18, wherein the induced voltage is supplied to the communication device via a power supply.

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Currently Amended) A system for communicating a data signal on the outer conductor of an electric power line carrying an AC power signal having a current signal and a first voltage ~~that is greater than one thousand volts~~ on a center conductor, comprising:

a transceiver in communication with the electric power line, wherein the transceiver is communicatively coupled to the outer conductor to provide communications therethrough,

~~wherein the current signal on the center conductor induces a second voltage that supplies power to the transceiver;~~

providing a transformer having a winding and a core;

disposing the core of the transformer in sufficiently close proximity to the power line to induce an second voltage in the winding from the power signal carried by the center conductor line;

a power supply that converts the second voltage to a direct current voltage, wherein the direct current voltage is provided to transceiver; and

wherein said transceiver is conductively coupled to the outer conductor to facilitate data communications therethrough.

36. (Canceled)

37. (Canceled)

38. (Previously presented) The system of claim 35, wherein the data signal communicated through the outer conductor traverses an access point to the Internet.

39. (Previously presented) The system of claim 35, wherein the power line has an insulative cover, a portion of which is removed.

40. (Previously presented) The system of claim 39, wherein the removed portion of the insulative cover exposes the outer conductor.

41. (Currently amended) The system of claim 35, wherein the transceiver receives the data-signal signals from and ~~provides the~~ transmits data-signal signals to a customer premise device.

42. (Previously presented) The system of claim 41, wherein the customer premise device is at least one of the following: a computer, a telephone, and a facsimile machine.

43. (Canceled)

44. (Canceled)

45. (Currently amended) The system of claim 35, wherein ~~a core forms part of a transformer that provides said second voltage;~~ and wherein said core is disposed substantially around the entire circumference of the power line.

46. (Canceled)

47. (Currently amended) The device of claim 8, wherein said core is disposed substantially around the entire circumference of said the power line ~~carrying a voltage greater than one thousand volts.~~

48. (Currently amended) The method of claim 1, further comprising converting the induced an AC voltage to a direct current voltage.

49. (Currently amended) The method of claim 1, wherein said ~~inducing is accomplished using a magnetically permeable~~ core is disposed substantially around the entire circumference of the power line.

50. (Previously presented) The method of claim 2, wherein the data signal is wirelessly transmitted.

51. (Previously presented) The method of claim 2, wherein the said transmitted data signal is a radio frequency signal.

52. (Currently amended) The method of claim 51, wherein the said transmitted data signal is a fiber optic radio frequency signal.

53. (Currently amended) The method of claim 1, wherein the power line ~~carrying the voltage greater than one thousand volts~~ comprises a center conductor, an insulator, and a second conductor external to the insulator.

54. (Previously presented) The method of claim 1, wherein the induced voltage is induced from the current carried by the power line.

55. (Previously presented) The device of claim 8, wherein the transceiver is a radio frequency transceiver.

56. (Canceled)

57. (Previously presented) The method of claim 18, wherein the induced voltage is induced from the current carried by the power line.

58. (Canceled)

59. (New) The device of claim 1, further comprising filtering the data signal received with a high pass filter.

60. (New) The method of claim 1, wherein powering the transceiver comprises providing the induced voltage to a power supply.

61. (New) The method of claim 1, wherein the communicating the data signal comprises receiving the data signal from the power line.

62. (New) The method of claim 61, further comprising transmitting the data signal to an end user device with the transceiver device via a radio signal.

63. (New) The method of claim 61, wherein the data signal received from the power line is supplied via an access point to the Internet.

64. (New) The device of claim 8, wherein the transceiver is configured to receive the data signal from the power line.

65. (New) The device of claim 64, wherein the transceiver is further configured to transmit the data signal to an end user device via a radio frequency signal.

66. (New) The device of claim 64, wherein the data signal received from the power line is supplied via an access point to the Internet.